

CAUTION : Read instructions thoroughly and completely prior to beginning installation.

### Installation Instructions Separable Elbow Connector - CENELEC interface type A



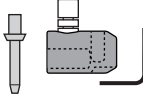
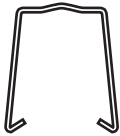










- For indoor and outdoor applications.
- Only for cables NF C 33-226, UTE C 33-223, NF C 33-223 & HN 33-S-23 [Part 1], NF C 33-220 (HN 33-S-22) with graphite coating screen [Part 2], NF C 33-220 (HN 33-S-22) with extruded semi-conductive screen [Part 3].
- In case the ambient temperature is less than 0°C, it could be necessary to warm up the sealing mastic and tape.

Check if the diameter over cable core insulation is in accordance with the cable reducer range as indicated in table below:

Cable reducer size (see marking inside cable reducer)	Dia. over core insulation (mm)	
	min	max
200CA-12	13.0	21.0
200CA-16	17.5	25.0

**Contents :**

<b>3x</b>  Elbow connector housing 200LR/G	 Cable reducer 200CA	 Conductor contact 200LRF + 200LRMC + hex	 Bail restraint 200LRBA	 Roll adhesive tape	
 Silicone grease + wipers			 Gloves	 Water sealing mastic, type MWS	 Installation instructions
 3 x Earthing device		 6 x Stainless steel straps	 3 x Semi- conductive tape		

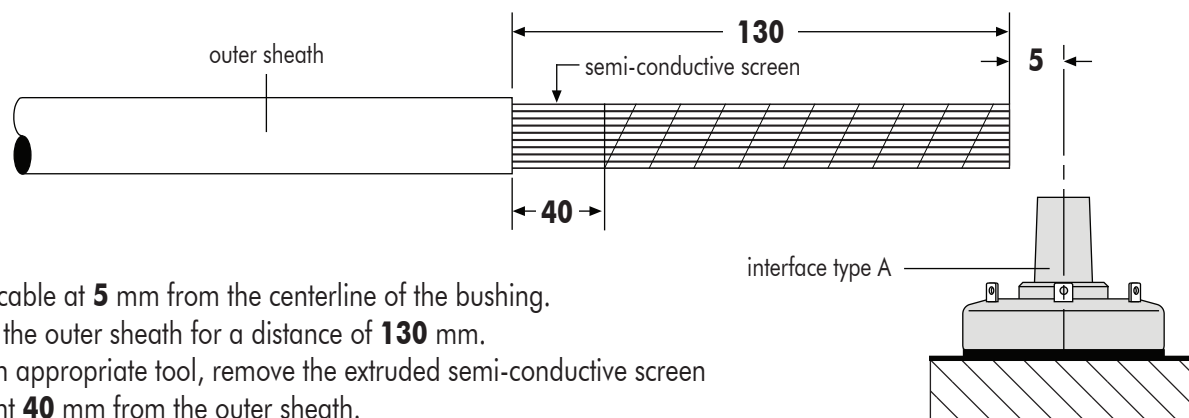
**Part 1. Cable NF C 33-226, UTE C 33-223, NF C 33-223 & HN 33-S-23**



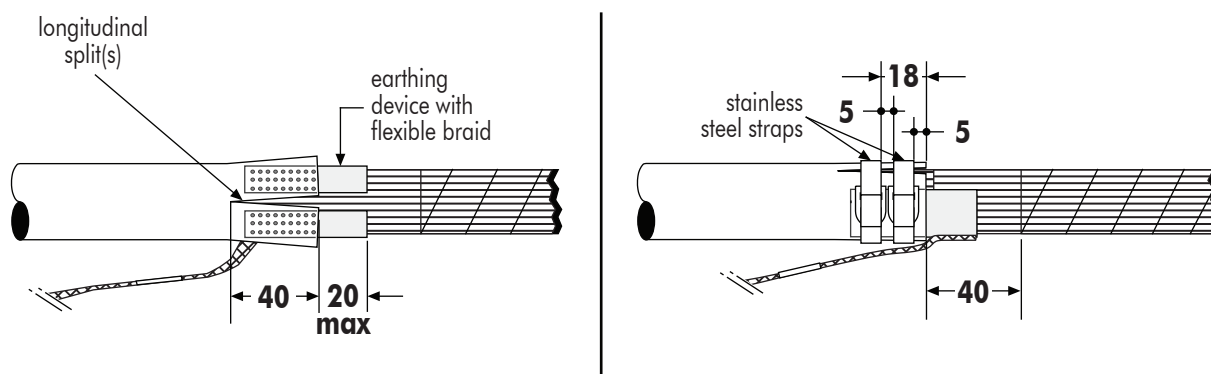
**For the preparation of the NF C 33-226 cables, please refer to the corresponding instructions marked on the cable : POPY, NIKOL or VINYL.**



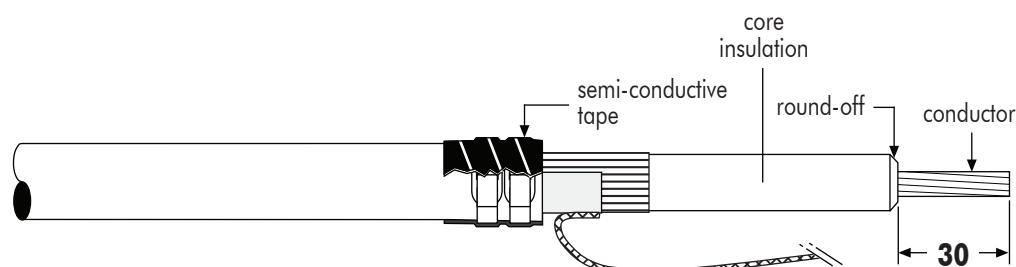
## CABLE PREPARATION AND SCREEN EARTHING



- 1** Cut the cable at **5** mm from the centerline of the bushing.
- 2** Remove the outer sheath for a distance of **130** mm.
- 3** Using an appropriate tool, remove the extruded semi-conductive screen to a point **40** mm from the outer sheath.

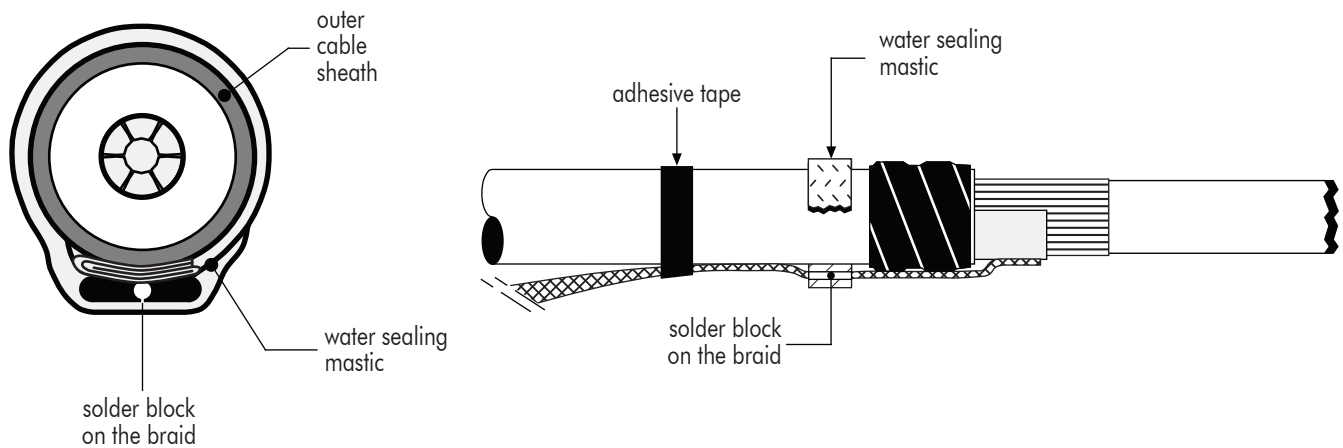


- 4** Cut longitudinal split(s) in the outer sheath to a point **40** mm from the edge.
- 5** Using a blunt tool, make a slight funnel of the outer sheath to fit the earthing device underneath the sheath.
- 6** Install the earthing device underneath the outer sheath, protruding for a distance of max. **20** mm.
- 7** Clear the outer sheath using the stainless steel straps. Twist straps twice around the cable and fold back the ends to avoid sharp edges.

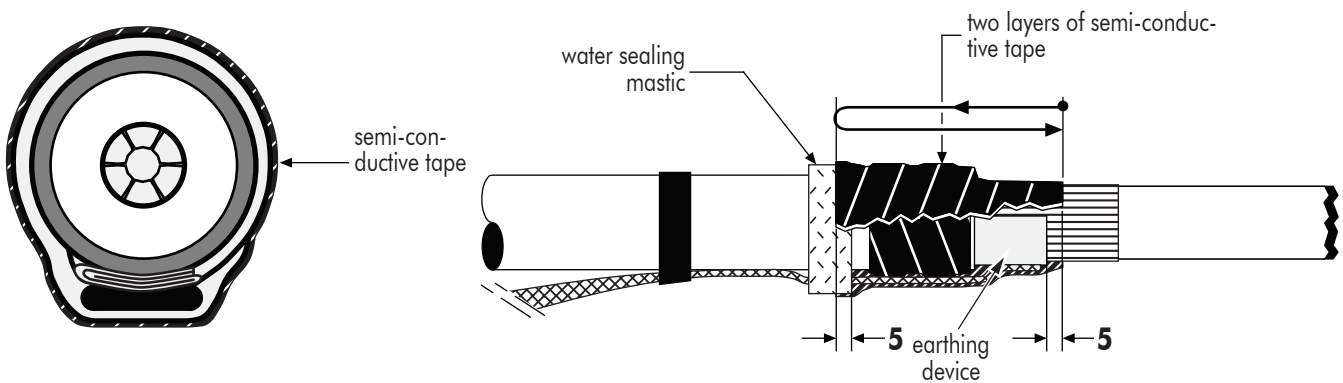


- 8** Apply one layer of semi-conductive tape around the metal straps (50% stretch, 50% overlap). Ensure the split is covered.
- 9** Bare the conductor for a distance of **30** mm from the cable end.
- 10** Slightly round-off the edge of the core insulation.
- 11** Remove the extruded conductive screen.

## WATERSEALING

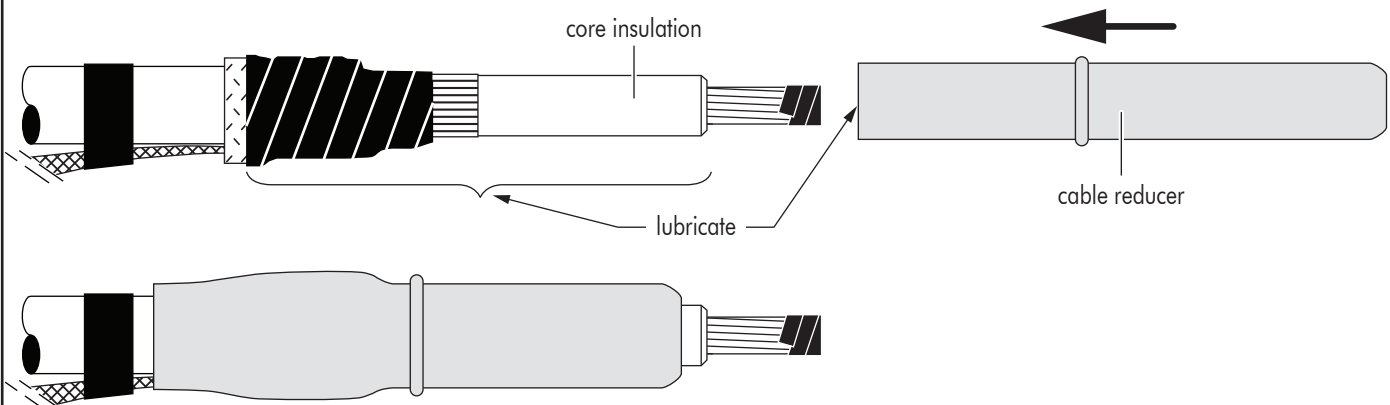


- 1 Fold one strip of mastic twice (4 layers) and place it under the solder block on the braid. Then wrap the second strip of mastic over the solder block of the braid and around the outer sheath.
- 2 Fixate the flexible braid using adhesive tape.



- 3 Apply two layers of semi-conductive tape, overlapping the water sealing mastic by 5 mm and overlapping the earthing device by 5 mm (50% stretch, 50% overlap).

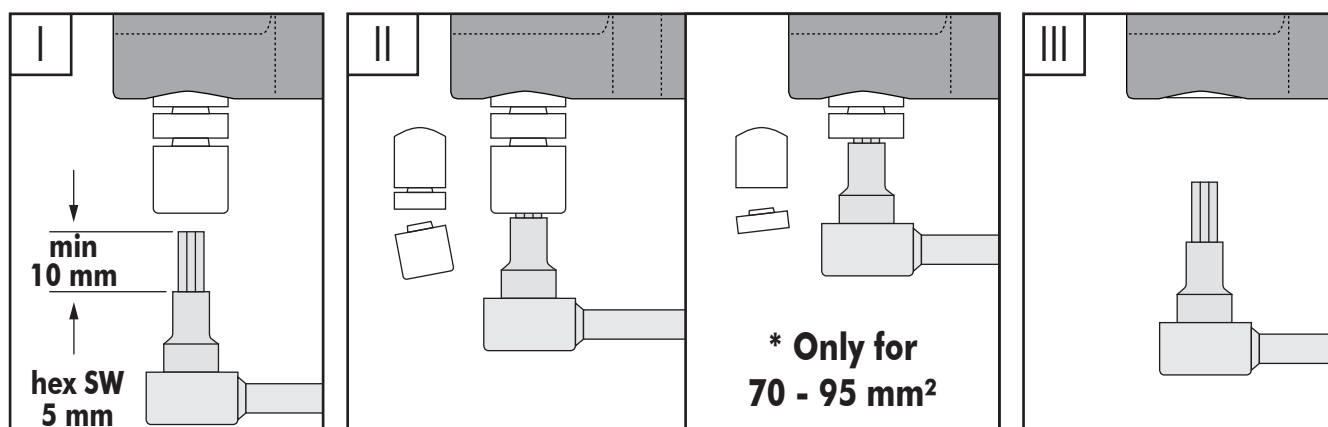
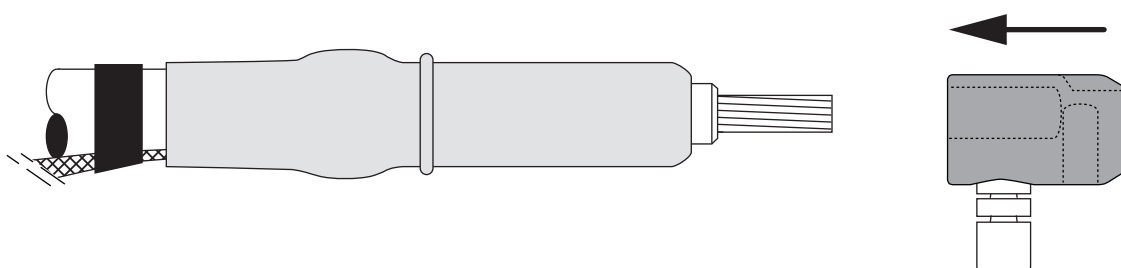
## INSTALLATION OF THE CABLE REDUCER



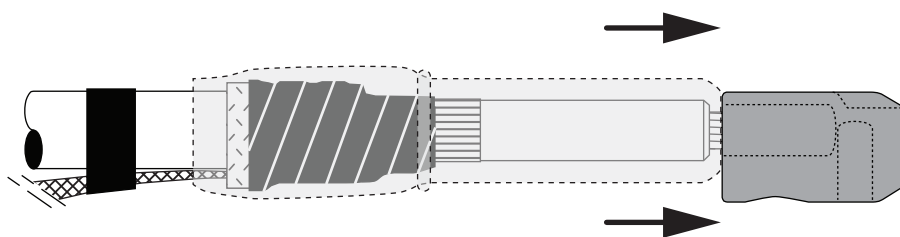
- 1 As a protection, wrap a few turns of adhesive tape around the conductor end.
- 2 Lubricate\* the indicated area : cable surface and inner surface of the reducer.
- 3 Slide the reducer down the cable.
- 4 Remove the protective adhesive tape from the conductor.

\* USE ONLY THE SILICONE LUBRICANT SUPPLIED

## TIGHTENING OF THE CONTACT

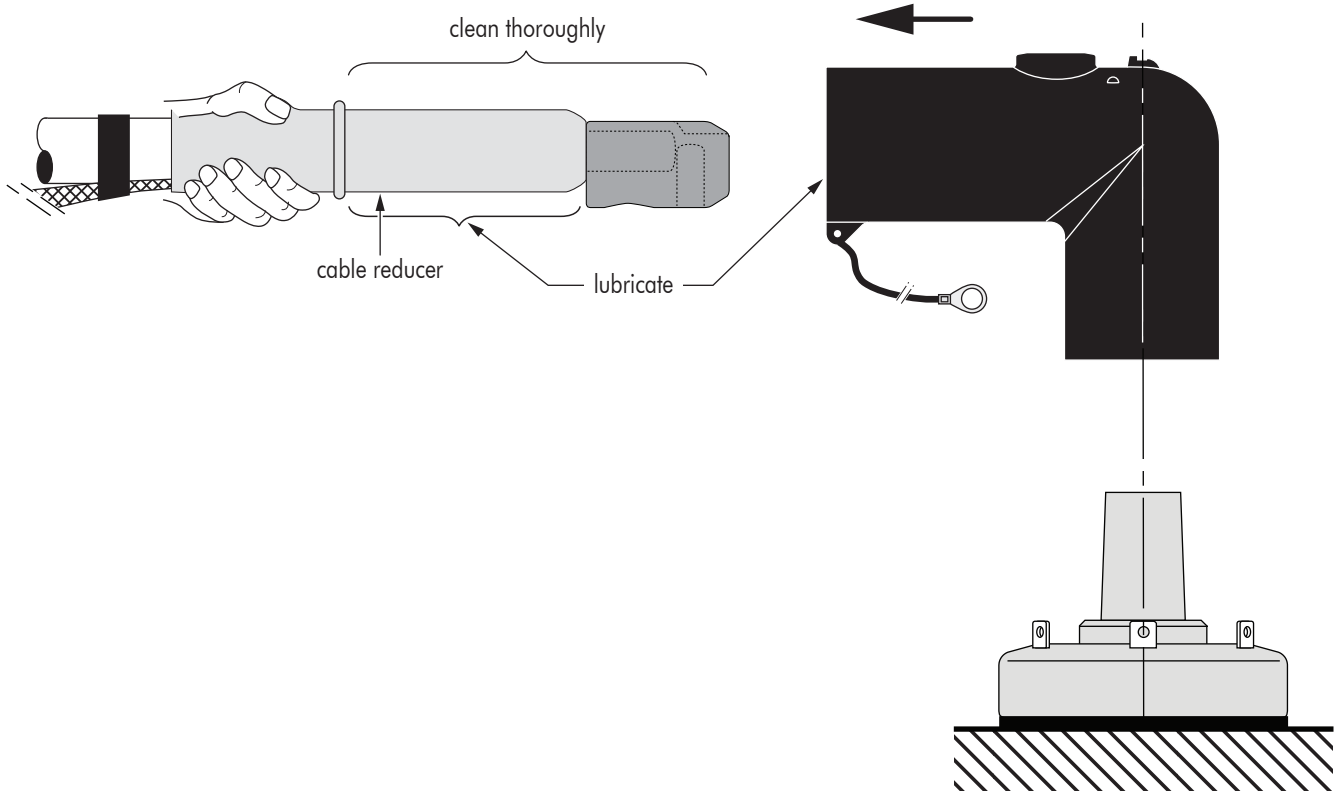


- 1** Install the contact with the contact palm facing the bushing interface.
- 2** Tighten the contact until the bolt head shears off.  
(\*) For 70 - 95 mm<sup>2</sup>, tighten again until the second level of the bolt head shears off.

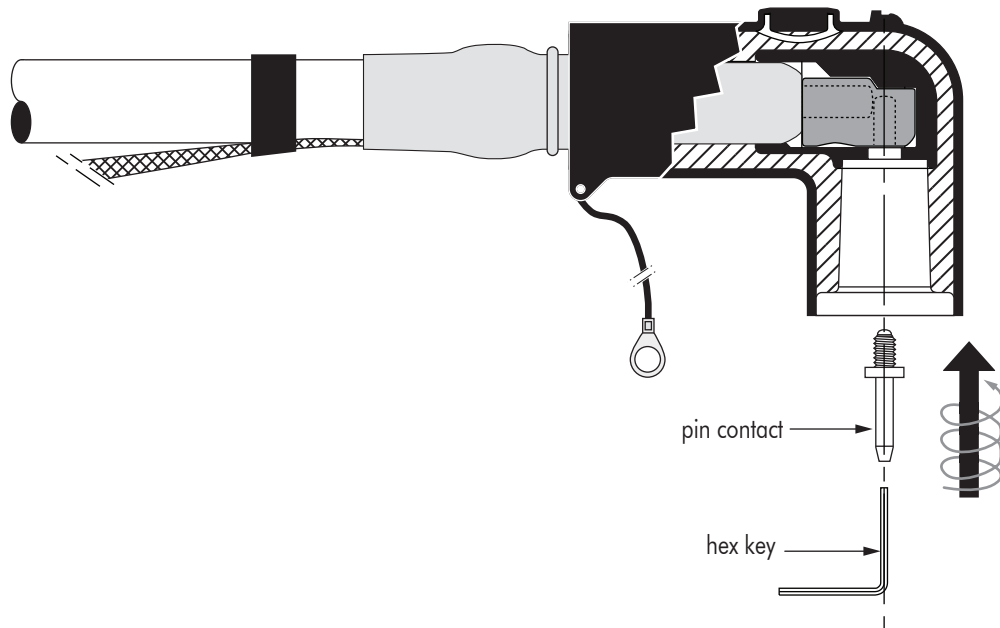


- 3** After tightening the contact, slide the cable reducer up until it butts against the contact.

## CONNECTOR INSTALLATION ON THE CABLE



- 1** Thoroughly clean cable reducer and contact.
- 2** Lubricate\* the cable reducer and inside surface of the connector.
- 3** Slide the connector housing on to the reducer until it cannot advance any further.



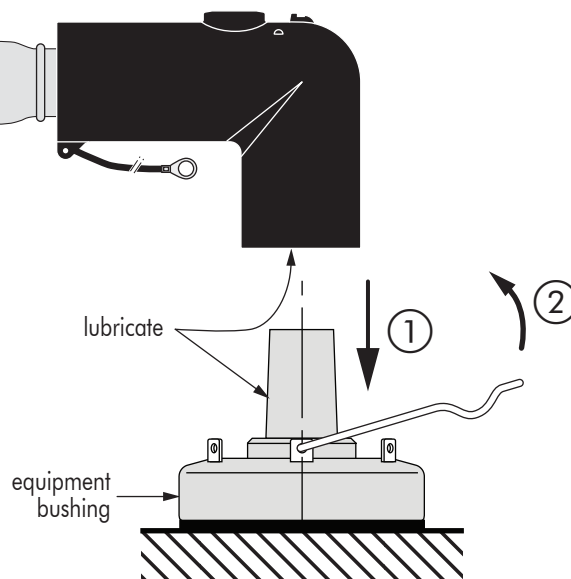
- 4** Insert the supplied hex key into the pin contact. Insert the threaded end of the pin contact into the mating part and engage threads. **Take care not to cross threads.**
- 5** Tighten with the supplied hex key until the key has taken a set.

### NOTE:

- The hex key must be inserted in the pin contact until it cannot advance any further.
- The hex key is only usable twice (once every side).

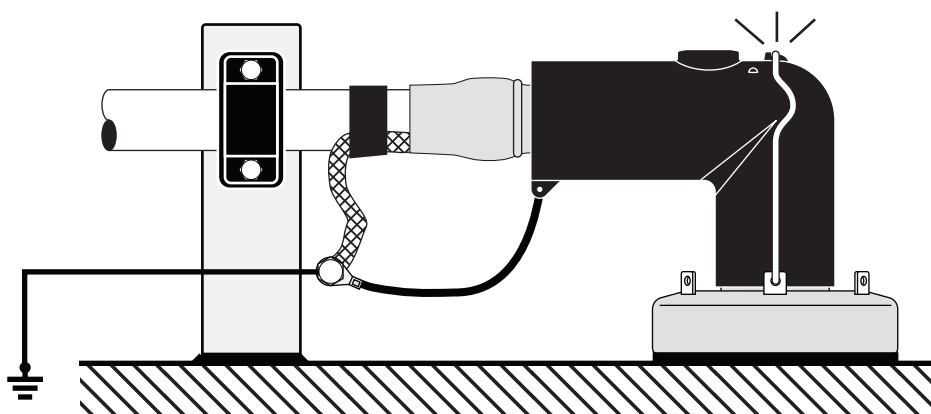
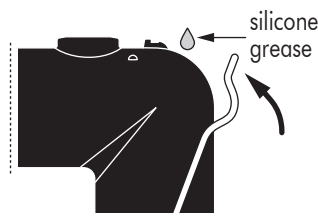
## CONNECTOR INSTALLATION ON THE BUSHING

- 1 Clean and lubricate\* lightly both bushing interface and elbow connector interface.
- 2 Place the elbow connector firmly down on the bushing ①.
- 3 Insert bail into the bushing tabs and position bail over elbow connector ②.



### Installation hint :

Apply a small dash of silicone grease on the connector's surface to easily snap the bail into position.



- 4 Connect earthing lead of the connector and flexible braid to the system earth.

### NOTE :

**A connector/bushing mated combination should not be allowed to carry the full weight of the cable. Therefore it is necessary to clamp the cable as close as possible to the connector.**

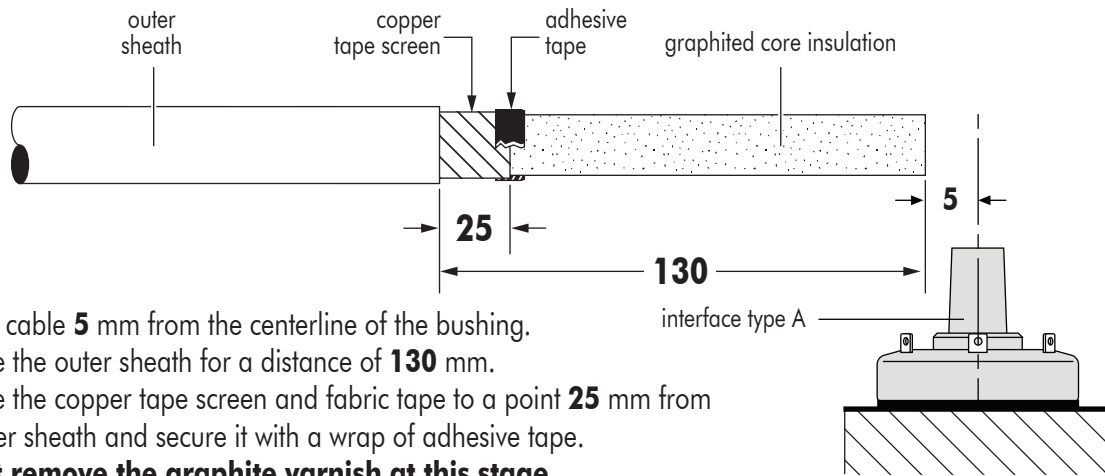
### IMPORTANT NOTES :

- Never disconnect the connector from energised equipment nor energise a disconnected connector without previously installing an appropriate mating part.
- Do not allow hydrocarbon oils or solvents to contaminate the E.P.D.M. rubber. In the event of contamination, wipe the surface clean with a dry cloth.

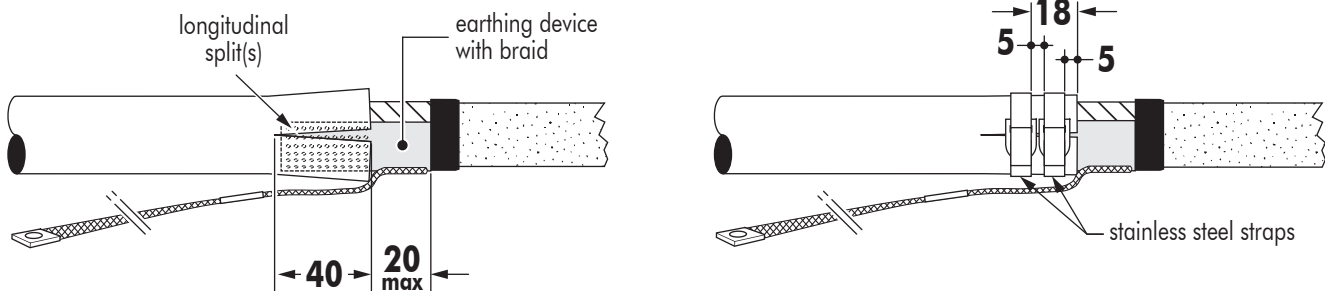
\* USE ONLY THE SILICONE LUBRICANT SUPPLIED

## Part 2. Cable with graphite coating screen NF C 33-220 (HN 33-S-22)

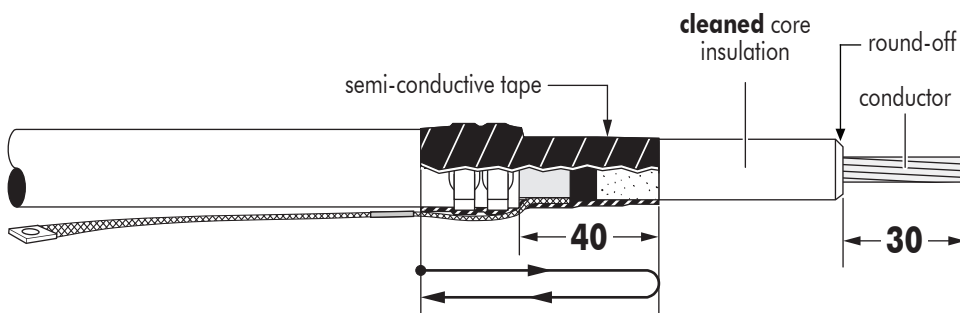
### CABLE PREPARATION AND CABLE SCREEN EARTHING



- 1 Cut the cable 5 mm from the centerline of the bushing.
- 2 Remove the outer sheath for a distance of 130 mm.
- 3 Remove the copper tape screen and fabric tape to a point 25 mm from the outer sheath and secure it with a wrap of adhesive tape.  
**Do not remove the graphite varnish at this stage.**



- 4 Cut longitudinal split(s) in the outer sheath to a point 40 mm from the edge.
- 5 Using a blunt tool, make a slight funnel of the outer sheath to fit the earthing device underneath the sheath.
- 6 Install the earthing device underneath the outer sheath. Have it protruded by maximum 20 mm.
- 7 Clean the outer sheath using the stainless steel straps. Twist straps twice around the cable and fold back the ends to avoid sharp edges.



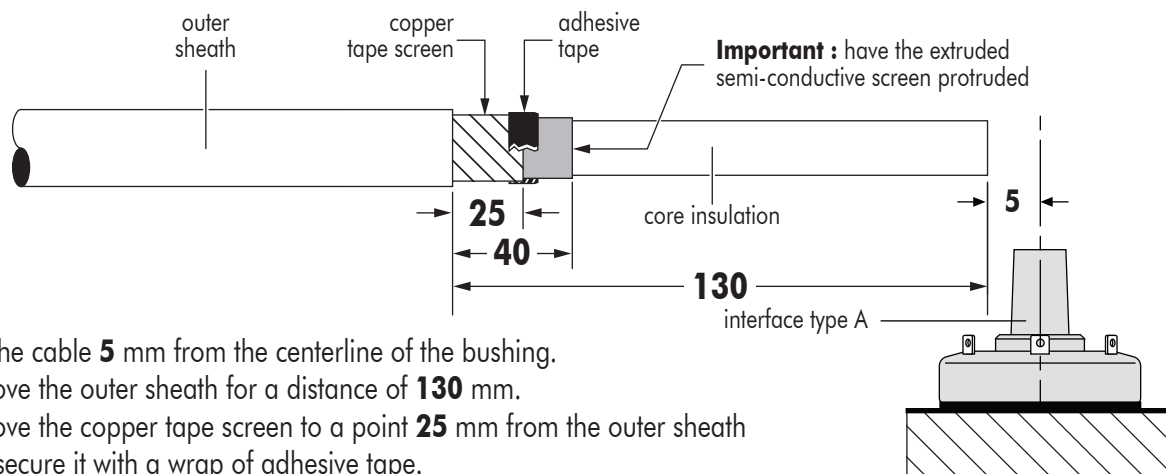
- 8 Apply 2 layers of semi-conductive tape, (50% stretch, 50% overlap), as follows: start taping on the metal straps (ensure the splits are covered), up to a point 40 mm behind the outer sheath. Without cutting the tape, apply a second layer back to the start.
- 9 Remove the core insulation from the conductor for a distance of 30 mm.
- 10 **Using an appropriate solvent thoroughly remove the graphite coating up to the semi-conductive tape.**
- 11 Slightly round-off the edge of the core insulation. **Do not sharpen in cone-shape.**

Continue the installation on page 4.

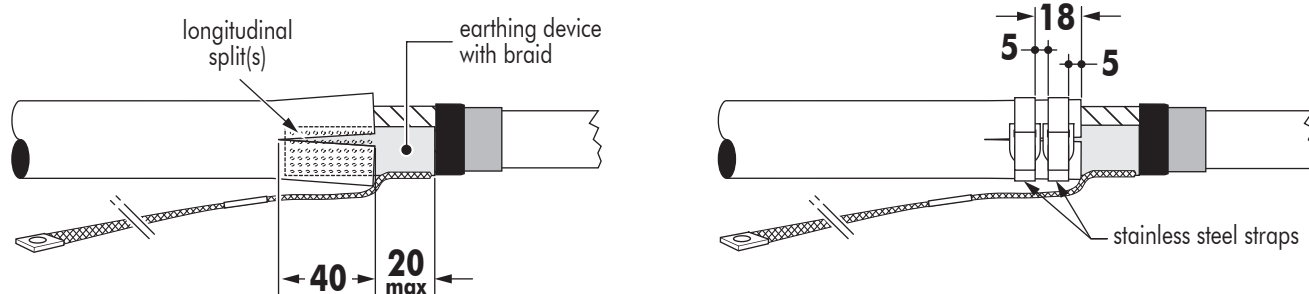


### Part 3. Cable with extruded semi-conductive screen NF C 33-220 (HN 33-S-22)

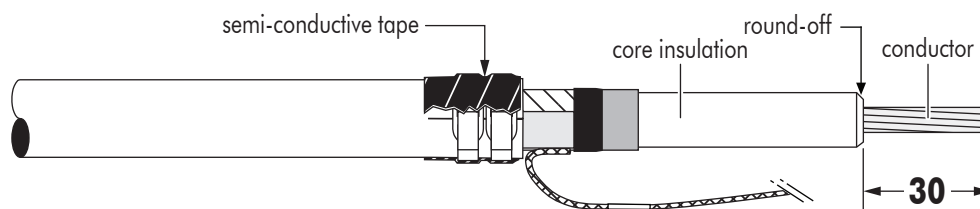
## CABLE PREPARATION AND CABLE SCREEN EARTHING



- 1 Cut the cable 5 mm from the centerline of the bushing.
- 2 Remove the outer sheath for a distance of 130 mm.
- 3 Remove the copper tape screen to a point 25 mm from the outer sheath and secure it with a wrap of adhesive tape.
- 4 Remove the extruded semi-conductive screen to a point 40 mm from the outer sheath.



- 5 Cut longitudinal split(s) in the outer sheath to a point 40 mm from the edge.
- 6 Using a blunt tool, make a slight funnel of the outer sheath to fit the earthing device underneath the sheath.
- 7 Install the earthing device underneath the outer sheath. Have it protruded by maximum 20 mm.
- 8 Clear the outer sheath using the stainless steel straps. Twist straps twice around the cable and fold back the ends to avoid sharp edges.



- 9 Apply 1 layer of semi-conductive tape, (50% stretch, 50% overlap), on the metal straps (ensure the splits are covered).
- 10 Remove the core insulation from the conductor for a distance of 30 mm.
- 11 Slightly round-off the edge of the core insulation. **Do not sharpen in cone-shape.**

Continue the installation on page 4.